

The fastest, most reliable
alternative to fixed-head disk.

IMPERIAL TECHNOLOGY'S
MAXIRAN-11
STORAGE SYSTEM

- RANDOM ACCESS
- HIGH SPEED
- ZERO LATENCY
- SOLID STATE
RELIABILITY



For cost-conscious PDP-11 users.



MAXiRAM-11

STORAGE SYSTEM

- Maximum Throughput
- Maximum Reliability
- Maximum Transparency

The sensible alternative or replacement for fixed-head disk used with PDP-11 computers.

- Random access capability to any address in storage.
- Maximum access time 1.5 micro-seconds.
- Transfer rate of 525,000 words/second.
- Zero latency.
- Modular capacity from 0.524 Megabytes to 8.388 Megabytes.
- Dual port controller.
- Non-volatile.
- Write protection.
- Low maintenance cost — no moving parts.

A reliable, solid state memory, the MaxiRAM-11 features a built-in controller which attaches to the Unibus on DEC's PDP-11 computer series.

The MaxiRAM memory responds through the controller in the same manner as RJS03 and RJS04 fixed-head disks. Yet it is both faster and more reliable than disk storage.

Modular Flexibility.

The memory storage is packaged in pluggable modules of 524K bytes (262,144 words by 18 bits). Each 19"

chassis accepts up to eight modules.

The chassis also accepts a pluggable controller unit and a pluggable power supply module. Modules are interconnected by means of a printed wire backplane. The rack-mount chassis features built-in forced-air cooling, making it completely self-contained.

Chassis Storage Expansion.

A second MaxiRAM chassis, containing eight storage modules, may be interconnected so that 8.388 Megabytes of memory is available through one controller. Parity is generated and checked for all data transfers. Any errors are flagged as an MDPE in the RSCS2 register.

The pluggable feature of storage modules facilitates field expansion. Maintenance is greatly simplified by the modular construction of the unit.

Total Transparency.

The MaxiRAM is totally transparent to all operating software and diagnostics because of its built-in controller. Each unit features two Unibus port interfaces. The first port is used for control and data; the second for data only. Data transmission may be switched between ports under program control.



The built-in controller of the MaxiRAM-11 attaches to the Unibus on DEC's PDP-11 computers.

MaxiRAM Memory Operations.

Read Search
Write Drive Clear
Write Check No Operation

The hardware registers listed below are incorporated into the MaxiRAM controller to insure complete operating transparency to the host computer. Also incorporated into the controller are many status and register indicators and control switches to facilitate operation and maintenance.

Mnemonic	Register	Unibus Address
RSCS1	Control & Status 1	772040
RSWC	Word Count	772042
RSBA	Unibus Address	772044
RSDA	Desired Address	772046
RSCS2	Control & Status 2	772050
RSDS	Drive Status	772052
RSER	Error	772054
RSAS	Attention Summary	772056
RSAL	Look Ahead	772060
RSDB	Data Buffer	772062
RSDT	Drive Type	772066

Safe Write Protection.

The MaxiRAM contains eight sets of six 'write-lock' switches for 4.194 Mega-bytes of storage. The setting of the six 'write-lock' switches correspond to a particular track number. This feature, when enabled, protects all tracks from

zero to the selected number from having new data written over existing data.

Non-Volatility.

The use of a magnetic storage medium insures complete non-volatility of data. In the event of a loss of power, important data and programs are not lost. Recovery time from power interruption is, therefore, significantly reduced.

Hardware/Software Compatibility.

No hardware or software changes are required in the PDP-11 computer system to utilize the performance and reliability which MaxiRAM offers. If desired, users may incorporate software patches for even greater performance.

Optimum Reliability, Performance & Economy.

The all-electronic, solid-state design of

the MaxiRAM Storage System assures inherent reliability. The storage medium of ferrite core (as utilized in the MaxiRAM) has exhibited a long-standing record of reliability as main computer memory. Imperial Technology, Inc. has advanced this mature technology to create the optimum in economy and performance.

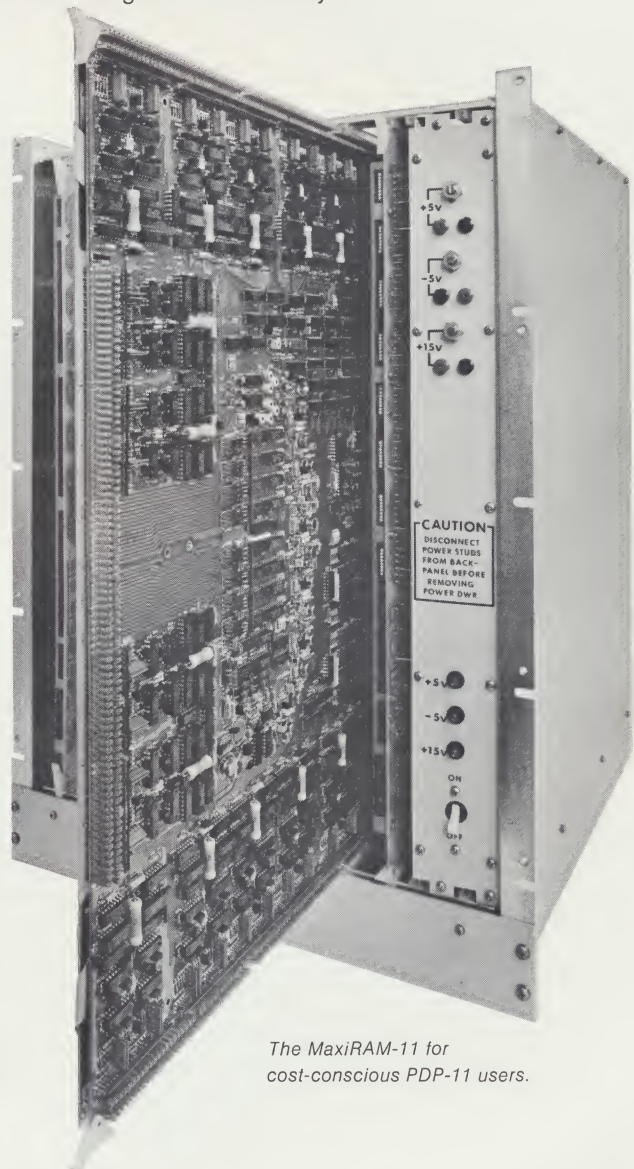
With no moving parts, the MaxiRAM assures consistent dependability with unparalleled uptime. Virtually forever!

12-Month Warranty.

Imperial Technology is a proven supplier of memory products. All equipment is produced to the highest quality standards. The MaxiRAM Storage System is backed by a full twelve month warranty.



The pluggable, modular construction of MaxiRAM storage modules facilitates easy field expansion and simplifies maintenance.



The MaxiRAM-11 for cost-conscious PDP-11 users.

SPECIFICATIONS:

Capacity:	0.524 Megabytes to 8.388 Megabytes in increments of 0.524 Megabytes.
Word Length:	16 bits + 2 parity bits (18 bits jumper selectable).
Data Transfer:	525,000 words/second.
Access Time:	1.5 microseconds maximum.
Data Buffer Capacity:	66 words.
Data Buffer Transfer Speed:	400 nanoseconds.
Words/Sector:	64 for RJS03, 128 for RJS04.
Interrupt Vector Address:	204 (jumper selectable).
Priority Level:	BR5 (jumper selectable).
Data Transfer:	NPR (1, 2 or Bus Hog (Port B) mode — jumper selectable).
Bus Loading:	One busload for each port.
Ports:	Dual Unibus (A and B).
Size:	26.5" (67.31cm) high 19.0" (48.26cm) wide 22.0" (55.88cm) deep
Power:	90 — 132 VAC or 180 — 264 VAC, single phase 50 or 60 Hertz. 4.194 Megabytes requires 7 amps at 120V.
Operating Environment:	0°C to 50°C ambient temperature. Up to 90% relative humidity with no condensation.



Imperial Technology, Inc.

831 S. Douglas Street, Suite 102
El Segundo, California 90245
Telephone: (213) 679-9501
Telex: 664469

Far East Facilities:

9 Lai Yip Street
Kwun Tong
Kowloon
Hong Kong, B.C.C.

Contact factory for further information.